



North Carolina Department of Environment and Natural Resources  
Division of Air Quality

Beverly Eaves Perdue  
Governor

Shelia C. Holman  
Director

Dee Freeman  
Secretary

MM DD, YYYY

Mr. Robert McCracken  
General Manager  
Nucor Steel – Hertford County Steel Mill  
1505 River Road  
Cofield, North Carolina 27922

Dear Mr. McCracken:

SUBJECT: Air Quality Permit No. 08680T15  
Facility ID: 4600099  
Nucor Steel – Hertford County Steel Mill  
1505 River Road  
Cofield, Hertford County, North Carolina  
Fee Class: Title V

In accordance with your Air Quality Permit Application received November 10, 2010 for the modification of your existing air quality permit, we are forwarding herewith Air Quality Permit No. 08680T15 to Nucor Steel-Hertford County Steel Mill, 1505 River Road, Cofield, North Carolina, authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing.

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**Permitting Section**

1641 Mail Service Center, Raleigh, North Carolina 27699-1641  
2728 Capital Blvd., Raleigh, North Carolina 27604  
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: [www.ncair.org](http://www.ncair.org)

One  
North Carolina  
*Naturally*

Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from MM DD, YYYY until March 31, 2014, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Mr. Joseph M. Voelker, P.E. at (919) 715-7218.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E., J.D.  
Chief

Enclosure

c: Gregg Worley, EPA Region IV  
Washington Regional Office  
Central Files

ATTACHMENT to cover letter to Air Quality Permit No. 08680T15

**Table of Changes to Permit No. 08680T14**

Old Condition	New Condition	Description of Change(s)
Cover letter	Cover letter	Revised as necessary (dates, etc.)
Permit page 1	Permit page 1	Revised as necessary (dates, permit no. etc.)
2.1.A.4.a.	Same	Revised CO BACT limit from 2.3 lb/ton/2518.5 tpy to 2.6 lb/ton/2847 tpy
2.1.A.4.b.	Same	Revised CO BACT limit from 28.12 lb/hr//113.1 tpy to 29.17 lb/hr/116.4 tpy
2.1.A.4.d.	same	Revised CO BACT limit from 2.3 lb/ton to 2.6 lb/ton
All 2D .0521 monitoring conditions	Same	Revised all 2D .0521 monitoring conditions to reference 2D .2610 instead of 2D .2601, as it is the specific regulation that addresses the use of Method 9 for opacity.
All testing conditions	Same	<ul style="list-style-type: none"> <li>• Revised regulatory citation from 2D .2601 to 2Q .0508(f)</li> <li>• Simplified language in condition from  <i>If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3</i>                      To  <i>If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.</i></li> </ul> <p>No change in intent was made.</p>
General Conditions	Same	<p>Revised from version 3.1 to 3.3. Changes include:</p> <ul style="list-style-type: none"> <li>• Condition JJ – revised some minor language and removed the 15 day test notification requirement (it is already included in 2D.2602)</li> <li>• Removing condition OO, which was the green house gas reporting rule requirement. It was determined that it was not a required condition under TV permitting rules.</li> </ul>

ATTACHMENT to cover letter to Air Quality Permit No. 08680T15

**Insignificant Activities per 15A NCAC 2Q .0503(8)**

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
I-01	Barge unloading/loading operations	N/A	N/A
I-02	Natural gas-fired space heaters, process water heaters, and air make up heaters	N/A	N/A
I-03	Paved roads	N/A	N/A
I-04	Scale pits (i.e. to store scale from steel products collected in flumes and transported with water)	N/A	N/A
I-05	Primary process water clarifiers and backwash holding tank	N/A	N/A
I-06	Tundish dumping, tearout, and refractory relining	N/A	N/A
I-07	Ladle dumping, tearout, and rebricking	N/A	N/A
I-08	Electric arc furnace refractory rebuild	N/A	N/A
I-09	Rolling mill operations including: descaling station, shear station, side trimmer, deburring, leveler, roll grinding, and cooling beds	N/A	N/A
I-10	Non-halogenated solvent parts washers	N/A	N/A
I-11	Scrap and raw material storage and handling (other than transport on unpaved roads)	N/A	N/A
I-12	Alloy storage and handling	N/A	N/A
I-13	Ladle and tundish grout mixing equipment	N/A	N/A
I-14	Caster steam vents	N/A	N/A
I-15	Caster quench box vents	N/A	N/A
I-16	Scarfing slabs	N/A	N/A
I-17	Air Separator Unit (ASU) sump vents, cooling towers, and natural gas-fired heater	N/A	N/A
I-18	Caster mold/segment repair	N/A	N/A
I-19	Product paint labeling	N/A	N/A
I-20	Gasoline-fired radio tower generator (22 hp maximum rated power output)	N/A	N/A
I-21	Natural gas-fired natural gas pipeline heater (0.75 million Btu per hour maximum heat input rate)	N/A	N/A
I-22	Miscellaneous maintenance activities (e.g. welding machines, torches, sandblasting, painting, etc.)	N/A	N/A
I-23	Mill scale screening plant	N/A	N/A
IOT-01	Diesel fuel storage tank (550 gallon capacity)	N/A	N/A
IOT-02	Hydraulic fluid storage tank (2,400 gallon capacity)	N/A	N/A
IOT-03	Hydraulic fluid storage tank (1,130 gallon capacity)	N/A	N/A
IOT-04	Oil/water separator (3,740 gallon capacity)	N/A	N/A
IOT-05	Used oil storage tank (2,000 gallon capacity)	N/A	N/A

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
IOT-06	Hydraulic fluid storage tank (2,400 gallon capacity)	N/A	N/A
IOT-07	Used oil/grease storage tank (4,000 gallon capacity)	N/A	N/A
IOT-09	Diesel fuel storage tank (500 gallon capacity)	N/A	N/A
IOT-10	Diesel fuel storage tank (5,000 gallon capacity)	N/A	N/A
IOT-11	Used oil storage tank (1,070 gallon capacity)	N/A	N/A
IOT-12	FR46 Ecosafe storage tank (4,500 gallon capacity)	N/A	N/A
IOT-13	Bulk mixed oil storage tank (2,000 gallon capacity)	N/A	N/A
IOT-15	FR46 Ecosafe storage tank (2,300 gallon capacity)	N/A	N/A
IOT-16	FR46 Ecosafe storage tank (5,500 gallon capacity)	N/A	N/A
IOT-17	FR46 Ecosafe storage tank (3,100 gallon capacity)	N/A	N/A
IOT-18	FR46 Ecosafe storage tank (1,770 gallon capacity)	N/A	N/A
IOT-19	Hydraulic fluid storage tank (2,112 gallon capacity)	N/A	N/A
IOT-20	Waste oil and water storage tank (2,300 gallon capacity)	N/A	N/A
IOT-21	Hydraulic fluid storage tank (2,300 gallon capacity)	N/A	N/A
IOT-22	Engine oil storage tank (500 gallon capacity)	N/A	N/A
IOT-23	Diesel fuel oil storage tank (10,000 gallon capacity)	N/A	N/A
IOT-24	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-25	Metsafe FR 200 storage tank (1,230 gallon capacity)	N/A	N/A
IOT-27	Glycol storage tank (10,000 gallon capacity)	N/A	N/A
IOT-28	Quintlubric storage tank (4,500 gallon capacity)	N/A	N/A
IOT-29	Diesel fuel oil storage tank (3,000 gallon capacity)	N/A	N/A
IOT-30	Metsafe FR 200 storage tank (2,700 gallon capacity)	N/A	N/A
IOT-31	Metsafe FR 200 storage tank (2,700 gallon capacity)	N/A	N/A
IOT-32	FR46 Ecosafe storage tank (2,000 gallon capacity)	N/A	N/A
IOT-36	Hydraulic fluid storage tank (4,500 gallon capacity)	N/A	N/A
IOT-37	Mobile 632 storage tank (1,400 gallon capacity)	N/A	N/A
IOT-38	FR46 Ecosafe storage tank (2,760 gallon capacity)	N/A	N/A
IOT-39	FR46 Ecosafe storage tank (2,760 gallon capacity)	N/A	N/A
IOT-40	Hydraulic fluid storage tank (550 gallon capacity)	N/A	N/A
IOT-41	Hydraulic fluid storage tank (550 gallon capacity)	N/A	N/A
IOT-42	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-50	Used oil storage tank (2,000 gallon capacity)	N/A	N/A
IOT-51	Diesel fuel oil storage tank (2,000 gallon capacity)	N/A	N/A
IOT-53	Motor/hydraulic oil storage tank (2,500 gallon capacity)	N/A	N/A
IOT-54	Motor/hydraulic oil storage tank (2,500 gallon capacity)	N/A	N/A

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
IOT-55	Diesel fuel oil storage tank (2,000 gallon capacity)	N/A	N/A
IOT-57	Engine oil storage tank (700 gallon capacity)	N/A	N/A
IOT-58	Lube oil storage tank (500 gallon capacity)	N/A	N/A
IOT-59	Lube oil storage tank (500 gallon capacity)	N/A	N/A
IOT-60	Lube oil storage tank (500 gallon capacity)	N/A	N/A
IOT-61	Motor oil storage tank (275 gallon capacity)	N/A	N/A
IOT-62	Used oil storage tank (500 gallon capacity)	N/A	N/A
IOT-63	Transmission fluid storage tank (225 gallon capacity)	N/A	N/A
IOT-64	Diesel fuel oil storage tank (10,000 gallon capacity)	N/A	N/A
IOT-65	Diesel fuel oil storage tank (1,000 gallon capacity)	N/A	N/A
IOT-67	Motor oil storage tank (150 gallon capacity)	N/A	N/A
IOT-68	Motor oil storage tank (150 gallon capacity)	N/A	N/A
IOT-69	Used oil storage tank (350 gallon capacity)	N/A	N/A
IOT-70	Diesel fuel oil storage tank (1,000 gallon capacity)	N/A	N/A
IOT-72	Kerosene storage tank (280 gallon capacity)	N/A	N/A
IOT-73	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-75	Used oil storage tank (300 gallon capacity)	N/A	N/A
IOT-76	Diesel fuel oil storage tank (300 gallon capacity)	N/A	N/A
IOT-77	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-78	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-79	Hydraulic fluid storage tank (700 gallon capacity)	N/A	N/A
IOT-80	Kerosene storage tank (300 gallon capacity)	N/A	N/A
IOT-81	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-83	Ecosafe storage tank (330 gallon capacity)	N/A	N/A
IOT-84	Antifreeze storage tank (275 gallon capacity)	N/A	N/A
IOT-85	Diesel fuel oil storage tank (1,000 gallon capacity)	N/A	N/A
IOT-86	Diesel fuel oil storage tank (500 gallon capacity)	N/A	N/A
IOT-90	Used oil storage tank (325 gallon capacity)	N/A	N/A
IOT-91	Motor oil storage tank (700 gallon capacity)	N/A	N/A
IOT-92	Gear lube oil storage tank (225 gallon capacity)	N/A	N/A
IOT-93	Kerosene storage tank (500 gallon capacity)	N/A	N/A
I-39	Oxygen Plant Heater	N/A	N/A
I-40	Oxygen Plant Cooling Tower	N/A	N/A

1. Because an activity is exempted from being required to have a permit or permit modification does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit."

State of North Carolina,  
Department of Environment,  
and Natural Resources



Division of Air Quality

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
<b>08680T15</b>	08680T14	MM DD, YYYY	March 31, 2014

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

**Permittee:** **Nucor Steel**

**Facility ID:** **4600099**

**Facility Site Location:** **1505 River Road**  
**City, County, State, Zip:** **Cofield, Hertford County, North Carolina, 27922**

**Mailing Address:** **P.O. Box 279**  
**City, State, Zip:** **Winton, North Carolina 27986**

**Application Number:** **4600099.10C**  
**Complete Application Date:** **November 10, 2010**  
**Primary SIC Code:** **3312**  
**Division of Air Quality,** **Washington Regional Office**  
**Regional Office Address:** **943 Washington Square Mall**  
**Washington, North Carolina 27889**

Permit issued this the DD<sup>th</sup> day of MM, 2011

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Donald R. van der Vaart, Ph.D., P.E., J.D., Chief, Air Permits Section  
By Authority of the Environmental Management Commission

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## SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
<b>Melt Shop</b>			
<b>NSPS AAa MACT YYYYY PSD CAM ES01</b>	One DC Electric Arc Furnace (350 ton per hour maximum capacity, 2,190,000 ton per year annual capacity) equipped with a direct-shell evacuation control system and roof canopy hood	CD01	One negative pressure baghouse (530,620 square feet of filter area)
<b>PSD ES02</b>	One Ladle Metallurgical Station consisting of two ladles with one set of AC electrodes alternately servicing both ladles equipped with a side draft hood		
<b>PSD ES03</b>	One water-cooled continuous slab caster equipped with a canopy hood		
<b>NSPS AAa PSD ES16</b>	One dust transport and storage system		
<b>Melt Shop Appurtenant Natural gas Combustion Sources</b>			
<b>PSD ES05</b>	Natural gas direct-fired ladle pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES06</b>	Natural gas direct-fired ladle pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES07</b>	Natural gas direct-fired ladle pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES08</b>	Natural gas direct-fired ladle pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES09</b>	Natural gas direct-fired ladle pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES10</b>	Natural gas direct-fired ladle dryer (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES11</b>	Natural gas direct-fired tundish pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES12</b>	Natural gas direct-fired tundish pre-heater (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES13</b>	Natural gas direct-fired tundish dryer (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES14</b>	Natural gas direct-fired tundish dryer (15 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES15</b>	Natural gas direct-fired tundish nozzle pre-heater (5 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>PSD ES94</b>	Natural gas direct-fired ladle pre-heater (9 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
<b>Heat Treating Facility</b>			
<b>PSD ES95</b>	Shot blaster	CD06	Bagfilter (10:1 gas/cloth ratio)

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
<b>PSD</b> ES96	Natural gas-fired austenitizing furnace (36 mmBtu per hour maximum heat input capacity)	N/A	N/A
<b>PSD</b> ES97	Natural gas-fired tempering furnace (37 mmBtu per hour maximum heat input capacity)	N/A	N/A
<b>PSD</b> ES102	Two-cell cooling tower (3,000 gallon per minute maximum flow rate)	CD08	Mist eliminator (0.005 percent drift loss)
<b>Other Sources</b>			
<b>PSD</b> ES04	Natural gas direct-fired reheat furnace (309 million Btu per hour maximum heat input rate) with low-NO <sub>x</sub> burners	N/A	N/A
ES91	Plate cutting bed with 8 natural gas-fired torches (0.04 million Btu per hour maximum rated heat input, each) and two plasma torches	CD04	One baghouse (3,040 square feet of filter area)
<b>PSD</b> ES98	Natural gas/oxyfuel-fired plate cutting bed consisting of ten oxy-fuel torches (0.4 mmBtu per hour total heat input rate)	CD07	Cartridge filter
<b>PSD</b> ES99	Natural gas/oxyfuel-fired plate cutting bed consisting of 8 oxy-fuel torches and two plasma torches (0.32 million Btu per hour total heat input rate)		
<b>PSD</b> ES 100	Vacuum degasser (350 tons of steel per hour maximum production capacity)	N/A	N/A
<b>NSPS, PSD</b> ES 101	Natural gas-fired vacuum degasser boiler (50.213 million Btu per hour maximum heat input)	N/A	N/A
<b>PSD</b> ES17 through ES26	Ten lime and/or injection carbon storage silo	CD02	Four bin vent filters (117 square feet of filter area, each)
ES93A	Railcar and/or truck unloading of lime	N/A	N/A
ES93	Railcar and/or truck unloading of injection carbon	CD05	One baghouse (1,000 square feet of filter area)
<b>PSD</b> ES37	Slag handling process consisting of crushing, conveying, screening, and stacking/loadout from storage piles	N/A	N/A
<b>PSD</b> ES38	One 2-cell contact cooling tower (25,000 gallon per minute maximum flow rate)	CDME38	Mist eliminator (0.008 percent drift loss)
<b>PSD</b> ES39	One 4-cell non-contact cooling tower (75,000 gallon per minute maximum flow rate)	CDME39	Mist eliminator (0.008 percent drift loss)
<b>PSD</b> ES40	One 1-cell contact air compressor cooling tower (5,646 gallon per minute maximum flow rate)	CDME40	Mist eliminator (0.008 percent drift loss)
<b>PSD</b> ES41	Unpaved roadways	N/A	N/A
<b>Internal Combustion Engine Sources</b>			
<b>MACT ZZZZ</b> <b>PSD</b> ES80	One diesel fuel-fired emergency generator (2,000 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES81	One diesel fuel-fired emergency generator (2,000 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES82	One diesel fuel-fired emergency generator (2,000 kW maximum rated power output)	N/A	N/A

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
<b>MACT ZZZZ</b> <b>PSD</b> ES84	One natural gas-fired emergency generator (250 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES86	One diesel-fired emergency generator (90 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES87	One diesel fuel-fired emergency water pump (130 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES88	One diesel fuel-fired emergency water pump (180 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES89	One diesel fuel-fired emergency water pump (110 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> <b>PSD</b> ES90	One diesel fuel-fired emergency water pump (630 kW maximum rated power output)	N/A	N/A
<b>MACT ZZZZ</b> ES103	One natural gas-fired emergency generator (131 kW maximum rated power output)	N/A	N/A
<b>Miscellaneous Sources</b>			
OT-08	Gasoline storage tank (250 gallon capacity)	N/A	N/A
OT-43	Gasoline storage tank (1,000 gallon capacity)	N/A	N/A

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

### 2.1- Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

#### A. The Melt Shop, including:

**Non-vented natural gas direct-fired sources including:**

- Six ladle preheaters (five with 15 million Btu per hour maximum heat input rate, each; ID Nos. ES05 through ES09 and one with 9 million Btu per hour maximum heat input rate; ID No. ES94);
- Ladle dryer (15 million Btu per hour maximum heat input rate; ID No. ES10);
- Two tundish preheaters (15 million Btu per hour maximum heat input rate, each; ID Nos. ES11 and ES12);
- Two tundish dryers (15 million Btu per hour maximum heat input rate, each; ID Nos. ES13 and ES14); and
- Tundish nozzle preheater (5 million Btu per hour maximum heat input rate; ID No. ES15)

**Melt Shop roof monitor (EP03) venting fugitive emissions from source ES01;**

**Melt Shop roof monitor (EP04) venting fugitive emissions from sources ES02, ES03, ES05 through ES15, and ES94; and**

**Melt Shop baghouse (530,620 square feet of filter area; ID No. CD01) associated with:**

- One Electric Arc Furnace (350 ton per hour maximum capacity; ID No. ES01) equipped with a direct-shell evacuation control system and roof canopy hood;
- One Ladle Metallurgy Station (ID No. ES02) consisting of two ladles with one set of AC electrodes alternatively servicing both ladles, equipped with a side draft hood;
- One water-cooled continuous slab caster (ID No. ES03) equipped with a canopy hood; and
- One dust transport and storage system (ID No. ES16)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20% opacity – Roof monitor EP04	15A NCAC 2D .0521
	< 3% opacity – EAF CD01 < 6% opacity – Roof monitor EP03 < 10% opacity – Dust transport/storage system ES16	15A NCAC 2D .0524 [40 CFR Part 60, Subpart AAa]
	PM emissions from EAF ES01 must not exceed 12 milligrams per dry standard cubic meter	15A NCAC 2D .0524 [40 CFR Part 60, Subpart AAa]
Particulate matter	CAM for ES01 and CD01	15A NCAC 2D .0614
	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Toxic Air Pollutants	State-Enforceable Only Refer to Section 2.2 A	15A NCAC 2D .1100
Odorous emissions	State Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	Maximum Achievable Control Technology	15A NCAC 2D .1111 [40 CFR Part 63, Subpart YYYYYY]

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the preheaters and dryers (ID Nos. ES05 through ES15 and ES94) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the combustion of natural gas in these preheaters and dryers.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from Melt Shop Roof Monitor EP04 shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once per day the Permittee shall observe the emission points of Melt Shop Roof Monitor EP04 for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semiannual period. If visible emissions from Melt Shop Roof Monitor EP04 are observed to be above normal, the Permittee shall either:

- i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2.a above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-

month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

### 3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524, "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60, Subpart AAa "Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed after August 17, 1983" including Subpart A "General Provisions." [15A NCAC 2D .0524]

#### Emission Limitations [40 CFR §60.272a]

- b. The Permittee shall limit particulate matter emissions from the affected sources such that:
  - i. From the Melt Shop baghouse (**ID No. CD01**): Visible emissions (six minute average in accordance with Method 9) must be less than three percent opacity and particulate matter emissions must be less than or equal to 0.0052 grains per dry standard cubic foot;
  - ii. From the dust transport and storage system (**ID No. ES16**): Visible emissions (six minute average in accordance with Method 9) must be less than ten percent opacity; and
  - iii. From Melt Shop roof monitor **EP03**: Visible emissions (six minute average in accordance with Method 9) due to fugitive emissions from the EAF (**ID No. ES01**) must be less than six percent opacity.

#### Testing [15A NCAC 2Q .0508(f) and 40 CFR §§60.8 and 60.275a]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 and 40 CFR Part 60, Subpart AAa.

#### Operational Requirements [40 CFR §§60.273a and 60.274a]

- d. Operation at parameter levels outside those levels established during the most recent compliance demonstration may be considered to be unacceptable operation and maintenance. The Permittee shall maintain the following parameters at the appropriate levels (i.e. as determined during the most recent compliance demonstration):
  - i. Observations of shop opacity in accordance with 40 C.F.R. § 60.273a(d); **OR**
  - ii. The pressure in the free space inside the EAF (**ID No. ES01**) during the meltdown and refining period(s), if the EAF is equipped with a static pressure gauge; **AND EITHER**
  - iii. The direct-shell evacuation control (DEC) system fan motor amperes and all damper positions; **OR**
  - iv. The volumetric flow rate through each separately ducted hood of the DEC system; **OR**
  - v. The volumetric flow rate at the Melt Shop baghouse (**ID No. CD01**) inlet and all damper positions.

#### Monitoring [15A NCAC 2Q .0508(f) and 40 CFR §§60.273a and 60.274a]

- e. For the Melt Shop and the EAF (**ID No. ES01**) the Permittee shall **EITHER**:
  - i. Monitor the opacity of the visible emissions from the Melt Shop (determined as the arithmetic average of 24 consecutive 15-second opacity observations taken in accordance with Method 9 while the furnace is operating in the meltdown and refining period) at the emission point of roof monitor **EP03** at least once per day; **OR**
  - ii. Monitor the pressure in the free space inside the EAF (**ID No. ES01**) at least once per shift via a static pressure monitor that is installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations; has an accuracy of +/- 5 millimeters of water gauge over its normal operating range; is installed in any appropriate location in the EAF (**ID No. ES01**) or the associated DEC system duct prior to the introduction of ambient air such that reproducible results will be obtained; and records the pressure as 15-minute integrated averages; **AND EITHER**:
    - iii. Monitor the DEC system fan motor amperes and all damper positions at least once per shift; **OR**
    - iv. Monitor the volumetric flow rate through each separately ducted hood of the DEC system via a monitor that: is installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations; has an accuracy of +/- 10 percent over its normal operating range; is installed in any appropriate location in the exhaust duct such that reproducible results will be obtained; and continuously records the volumetric flow rate through each separately ducted hood of the DEC system; **OR**

- v. Record all damper positions of, and monitor the volumetric flow rate at the inlet of, the Melt Shop baghouse (**ID No. CD01**) via a monitor that: is installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations; has an accuracy of +/- 10 percent over its normal operating range; is installed in any appropriate location in the exhaust duct such that reproducible results will be obtained; and continuously records the volumetric flow rate at the Melt Shop baghouse (**ID No. CD01**) inlet.
- f. For the Melt Shop baghouse (**ID No. CD01**) the Permittee shall **EITHER**:
  - i. Monitor the opacity of the visible emissions from the Melt Shop baghouse (**ID No. CD01**) via a continuous opacity monitoring system (COMS) that is installed, calibrated, operated, and maintained in accordance with the equipment manufacturer's recommendations; **OR**
  - ii. Monitor the opacity of the visible emissions from the Melt Shop baghouse (**ID No. CD01**) in accordance with Method 9 for at least three 6-minute periods at least once per day while the EAF (**ID No. ES01**) is operating in the melting and refining period; **AND**
  - iii. Monitor the particulate matter emissions from the Melt Shop baghouse (**ID No. CD01**) via a continuously operated bag leak detection system (BLDS). The Permittee shall monitor the BLDS output; the BLDS adjustments including the date and time of adjustment, the initial settings, and the adjusted settings; and BLDS alarm information. The BLDS alarm information includes the date and time of an alarm, the time that procedures to determine the cause of the alarm were initiated and whether those procedures were initiated within 1 hour of the alarm, the cause of the alarm and corrective actions taken, the date and time the cause of the alarm was alleviated and whether the alarm was alleviated within 3 hours of the alarm. The BLDS shall:
    - (A) Be installed, calibrated, operated, and maintained in accordance with the equipment manufacturer's recommendations, the US EPA guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015) [if the BLDS operates based on the triboelectric effect], and a site-specific monitoring plan that describes:
      - (1) Installation of the BLDS;
      - (2) Initial and periodic adjustment of the BLDS including how the alarm set-point will be established;
      - (3) Operation of the BLDS including quality assurance procedures;
      - (4) How the BLDS will be maintained including a routine maintenance schedule and a spare parts inventory list; and
      - (5) How the BLDS will be recorded and stored.
    - (B) Be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations less than or equal to 1 milligram per cubic meter;
    - (C) Utilize sensors that provide continuous output of relative particulate matter loadings;
    - (D) Be equipped with an alarm system that will sound when relative particulate matter loadings surpass the alarm set point and is located such that it can be heard by appropriate plant personnel; and
    - (E) Be initially adjusted by the Permittee to establish the baseline input (i.e. the sensitivity and averaging period), the alarm set points, and the alarm delay, if applicable. After performing the initial BLDS adjustment, the Permittee shall not adjust these settings except as follows:
      - (1) The Permittee may adjust these parameters if the Permittee has received approval of the adjustments from NC DAQ;
      - (2) The Permittee may adjust the sensitivity of the BLDS in accordance with the site-specific monitoring plan to account for seasonal effects (e.g. temperature and humidity) once per quarter; and
      - (3) If the BLDS alarm does not sound while visible emission opacities greater than 0% opacity are observed over four consecutive 15-second observations the Permittee shall lower the alarm set point such that the alarm would have sounded during the period when the visible emission opacity observations were made.
- g. The Permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (e.g. pressure sensors, dampers, and damper switches) including observations of the physical appearance of the equipment (e.g. structural integrity of ductwork, hoods or the walls and roof of the melt shop building structure; flow constrictions caused by dents or accumulated dust in the ductwork; and fan erosion).

**Recordkeeping** [15A NCAC 2Q .0508(f) and 40 CFR §§60.273a, 60.274a and 60.276a]

- h. The Permittee shall retain records of the parametric monitoring, equipment adjustments and calibrations, and inspections (with deficiencies and corrective actions noted) performed pursuant to Sections 2.1 A.3.e through g, above, and make them available for review by authorized personnel. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 and 40 CFR Part 60, Subpart AAa if the monitoring required in Sections 2.1 A.3.e through g, above, is not performed or if the records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f) and 40 CFR §§60.273a, 60.274a and 60.276a]

- i. The Permittee shall submit a semiannual monitoring summary report by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. These semiannual reports shall clearly identify of all instances of deviations from the requirements of this permit and include:
  - i. Any 6-minute period(s) during which the average opacity of visible emissions from the Melt Shop baghouse (**ID No. CD01**) was greater than or equal to 3%;
  - ii. Any 6-minute period(s) during which the average opacity of visible emissions due to fugitive emissions from the EAF (**ID No. ES01**) from Melt Shop roof monitor **EP03** was greater than or equal to 6%;
  - iii. Periods of EAF (**ID No. ES01**) operation during which the furnace static pressure exceeds the value established during the most recent compliance demonstration (if shop opacities are not conducted in accordance with 40 C.F.R. § 60.273a(d)); **AND EITHER:**
  - iv. Periods of EAF (**ID No. ES01**) operation during which the DEC system fan motor operates at ampere levels exceeding +/- 15% of the value established during the most recent compliance demonstration; **OR**
  - v. Periods of EAF (**ID No. ES01**) operation during which the volumetric flow rates through each separately ducted hood of the DEC system or at the inlet of the Melt Shop baghouse (**ID No. CD01**) are below the values established during the most recent compliance demonstration.
- j. The Permittee shall provide written intent to change notification, if applicable, of which monitoring listed in Sections 2.1 A.3.e and f of this permit, above, shall be used to demonstrate continuous compliance at least two weeks prior to implementing the change.

**4. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) permitted emission limits from the Electric Arc Furnace (**ID No. ES01**), the Ladle Metallurgy Station (**ID No. ES02**), and the Continuous Slab Caster (**ID No. ES03**), all controlled by baghouse (**ID No. CD01**), are as follows:

Pollutant	BACT limits
PM <sub>10</sub> /PM <sub>2.5</sub> (filterable)	0.0018 grains per dry standard cubic foot
PM <sub>10</sub> /PM <sub>2.5</sub> (filterable and condensable)	0.0052 grains per dry standard cubic foot
SO <sub>2</sub>	0.35 pounds per ton of steel produced
	383.25 tons per 12 consecutive month period
NO <sub>x</sub>	0.36 pounds per ton of steel produced
	394.2 tons per 12 consecutive month period
CO	2.6 pounds per ton of steel produced
	2847 tons per 12 consecutive month period
VOC	0.13 pounds per ton of steel produced
	142.4 tons per 12 consecutive month period
Lead	0.0016 pounds per ton of steel produced
	1.75 tons per 12 consecutive month period

- b. The BACT permitted fugitive emission limits from the Electric Arc Furnace (**ID No. ES01**), Ladle Metallurgy Station (**ID No. ES02**), Continuous Slab Caster (**ID No. ES03**), and non-vented natural gas combustion sources (**ID Nos. ES05 through ES15, and ES94**), vented via Melt Shop Roof Monitors **EP03 and EP04**, are as follows:

Pollutant	BACT limits
PM <sub>10</sub> (filterable and condensable)	4.21 pounds per hour
PM <sub>2.5</sub> (filterable and condensable)	3.44 pounds per hour
SO <sub>2</sub>	1.86 pounds per hour
	6.6 tons per 12 consecutive month period
NO <sub>2</sub>	9.6 pounds per hour (12-month hourly average)
CO	29.17 pounds per hour
	116.4 tons per 12 consecutive month period
VOC	7.6 tons per 12 consecutive month period
Lead	0.04 pounds per hour (3-month hourly average)

- c. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Melt Shop Baghouse (ID No. CD 01)	PM <sub>2.5</sub> (filterable and condensable)	50.38
	PM <sub>10</sub> (filterable and condensable)	51.75
	NO <sub>2</sub>	90.0
	Lead	0.4
Melt Shop Roof Monitors (ID Nos. EP03 and EP04)	PM <sub>2.5</sub> (filterable and condensable)	3.44
	PM <sub>10</sub> (filterable and condensable)	4.21
	NO <sub>2</sub>	9.60
	Lead	0.091

**Testing** [15A NCAC 2Q .0508(f)]

- d. i. For the emission sources listed in Section 2.1 A.4.a, above:
- (A) Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits given in Section 2.1 A.4.a, above, by testing the emissions from the Melt Shop baghouse (**ID No. CD01**) during the 2nd quarter of each calendar year.
  - (B) The testing shall be conducted when the electric arc furnace (**ID No. ES01**), the ladle metallurgical station (**ID No. ES02**), and the caster (**ID No. ES03**) are all in operation. The capacity at which the annual testing is conducted shall be based on production records and shall be as approved by the DAQ, Washington Regional Office.
  - (C) The testing shall be performed in accordance with 15A NCAC 2D .2601, General Condition JJ, and a protocol approved by NC DAQ. At least forty-five (45) days prior to performing this required emissions testing, the Permittee shall develop and submit a testing protocol to the Washington Regional Supervisor, Division of Air Quality for review and approval.
  - (D) The testing shall utilize the following test methods:

Pollutant	Emission Limit
PM <sub>10</sub> /PM <sub>2.5</sub> (filterable) based on averaging emissions measured by three eight-hour test runs and as determined by Method 5	0.0018 grains per dry standard cubic foot

Pollutant	Emission Limit
PM <sub>10</sub> /PM <sub>2.5</sub> (filterable and condensable) based on averaging emissions measured by three eight-hour test runs and as determined by Methods 5 and 202	0.0052 grains per dry standard cubic foot
sulfur dioxide based on averaging emissions measured by three eight-hour test runs and as determined by Method 6	0.35 pounds per ton of steel
nitrogen oxides based on averaging emissions measured by three eight-hour test runs and as determined by Method 7	0.36 pounds per ton of steel
carbon monoxide based on averaging emissions measured by three eight-hour test runs and as determined by Method 10	2.6 pounds per ton of steel
Volatile organic compounds based on averaging emissions measured by three eight-hour test runs and as determined by Method 25	0.13 pounds per ton of steel
lead based on averaging emissions measured by three eight-hour test runs and as determined by Method 29	0.0016 pounds per ton of steel

(E) If the results of this test are above the limits given in Section 2.1 A.4.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

ii. For the emission sources listed in Section 2.1 A.4.b, above:

(A) If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601, General Condition JJ, and a protocol approved by NC DAQ.

(B) If the results of this test are above the limits given in Section 2.1 A.4.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

e. i. The following requirements apply:

(A) To ensure that optimum particulate matter control efficiency is maintained by the Melt Shop baghouse (**ID No. CD01**), inspections and maintenance shall be performed as recommended by the manufacturer and or operating experience. A written or computer based program which details the scheduled maintenance and inspection activities shall be maintained and kept current. The defined activities shall be performed per a set schedule (daily through annually) with a method of tracking and recording the completion of each event.

(B) Steel production shall be limited to 350 tons per hour. Tons of steel per hour shall be measured by actual operating hours and tons of steel produced as measured at the outlet of the caster (**ID No. ES03**) and averaged over a 24-hour day starting at 7am. A daily production record shall be maintained which documents tons produced including any tons that were poured back into EAF, operating hours per day, and average tons per hour.

(C) The baghouse dust transport system and storage (**ID No. ES16**) shall be physically inspected once per month to ensure that the conveyor system is contained within a dust tight enclosure. An inspection record shall be maintained with the date of the inspection, any deficiencies noted, and corrections implemented.

(D) If this monitoring is not conducted or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

ii. For the emission sources listed in Section 2.1 A.4.b, above:

(A) The Permittee shall comply with the monitoring and recordkeeping requirements of 15A NCAC 2D .0521 and 15A NCAC 2D .0524 found in Sections 2.1 A.2.c and d and 2.1 A.3.e and h, above.

(B) If this monitoring is not conducted or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Reporting** [15A NCAC 2Q .0508(f)]

f. i. For the emission sources listed in Section 2.1 A.4.a, above:

(A) The Permittee shall submit a summary report of inspection and maintenance activities within 30 days of a written request by the DAQ.

- (B) Within 30 days after conducting the testing required in Section 2.1 A.4.d.i, above, the Permittee shall submit a written report of the test results to the Washington Regional Office.
  - (C) The Permittee shall provide written notification to the Air Quality Supervisor, Washington Regional Office, of intent to change of the starting time period for calculating the 24-hour production rate as listed in Section 2.1 A.4.e.i.B, above. The change notification shall be submitted at least two weeks prior to implementing the change.
  - (D) The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- ii. For the emission sources listed in Section 2.1 A.4.b, above: The Permittee shall comply with the reporting requirements of 15A NCAC 2D .0521 and 15A NCAC 2D .0524 found in Sections 2.1 A.2.e, 2.1 A.3.i.ii, and 2.1 A.3.j, above.

#### 5. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- a. For the direct-shell evacuation control (DEC) system and the Melt Shop baghouse (**ID No. CD01**), the Permittee shall comply with 40 CFR Part 64 pursuant to 15A NCAC 2D .0614 to assure that the associated Electric Arc Furnace (EAF) (**ID No. ES01**) complies with the emission limits of 15A NCAC 2D .0524 (i.e. NSPS AAa), 15A NCAC 2D .0530, and 15A NCAC 2D .1111 (i.e. MACT YYYYYY).
- b. To assure compliance particulate matter and visible emissions from the EAF (**ID No. ES01**) shall be controlled by the associated direct-shell evacuation control (DEC) system and the Melt Shop baghouse (**ID No. CD01**).

##### Monitoring/Recordkeeping [15A NCAC 2Q .0508(f)]

- c. To assure compliance, the Permittee shall conduct daily monitoring of the opacity of visible emissions from Melt Shop roof monitor **EP03** due to fugitive emissions from the EAF (**ID No. ES01**) in accordance with 15A NCAC 2D .2610 (Method 9) for at least 6 minutes and shall conduct daily monitoring of the opacity of the visible emissions from the Melt Shop baghouse (**ID No. CD01**) via the associated COMS and/or in accordance with 15A NCAC 2D .2610 (Method 9) for at least 6 minutes.
  - i. If visible emissions from the Melt Shop baghouse (**ID No. CD01**) or from Melt Shop roof monitor **EP03** with opacity greater than or equal to 3 percent (six minute average) are observed then an excursion has occurred.
    - (A) In the event of an excursion the Permittee shall take appropriate action to correct the excursion as soon as practicable.
    - (B) If greater than or equal to 5% of the visible emissions observations during any consecutive 6-month period qualify as excursions, then the Permittee shall develop a Quality Improvement Plan in accordance with 40 CFR §64.8.
  - ii. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
    - (A) The date and time of each recorded action;
    - (B) The results of the COMS calibrations and monitoring, noting any excursions along with any corrective actions taken to reduce visible emissions; and
    - (C) The results of any corrective actions performed.
  - iii. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0614 if the visible emissions from the Melt Shop baghouse (**ID No. CD01**) and Melt Shop roof monitor **EP03** are not monitored or if the records are not maintained.
- d. Reporting [15A NCAC 2Q .0508(f)]  
The Permittee shall submit a summary report of the monitoring postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**6. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

**Applicability** [15A NCAC 2D .1111 and 40 CFR §63.10680]

- a. The Electric Arc Furnace (ID No. ES01) is subject to Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart YYYYYY "National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities" including Subpart A "General Provisions." [15A NCAC 2D .1111]

**Control Requirements/Emission Limits** [15A NCAC 2D .1111 and 40 CFR §63.10686]

- b. The Permittee shall:
- i. Install, operate, and maintain a capture system that collects emissions from the Electric Arc Furnace (EAF) (**ID No. ES01**) and conveys the collected emissions to the Melt Shop baghouse (**ID No. CD01**);
  - ii. Limit discharges from the Melt Shop baghouse (**ID No. CD01**) to less than or equal to 0.0052 grains of particulate matter per dry standard cubic foot;
  - iii. Limit visible emission discharges from the Melt Shop monitor **EP03** to less than 6 percent opacity;
  - iv. Control the amount of chlorinated plastics, lead, and free organic liquids in the scrap charged into the EAF (**ID No. ES01**) via the methods of 40 CFR §63.10685(a)(1) "Pollution prevention plan"; and
  - v. Control the amount of mercury in the scrap charged into the EAF (**ID No. ES01**) via the methods of 40 CFR 40 CFR §63.10685(b)(1) "Site-specific plan for mercury switches," 40 CFR §63.10685(b)(2) "Option for approved mercury programs," 40 CFR §63.10685(b)(3) "Option for specialty metal scrap," and/or 40 CFR §63.10685(b)(4) "Scrap that does not contain motor vehicle scrap." The Permittee may have different scrap providers, contracts, or shipments subject to different compliance options within 40 CFR §63.10685(b).

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601, General Condition JJ, and a protocol approved by NC DAQ. If the results of this test are above the limits given in Section 2.1 A.6.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart YYYYYY.

**Monitoring** [15A NCAC 2D .1111, 40 CFR §63.10685 and 40 CFR §63.10686]

- d. The Permittee shall perform the following monitoring of chlorinated plastic, lead, and free organic liquids in materials charged into the EAF (**ID No. ES01**):
- i. For the scrap for which the Permittee has opted to comply with 40 CFR §63.10685(a) via the requirements of 40 CFR §63.10685(a)(1) "Pollution prevention plan" the Permittee must:
    - (A) Prepare, implement, and submit to NC DAQ for approval a pollution prevention plan (PPP) for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquid that is charged into the EAF (**ID No. ES01**) while producing steel other than leaded steel and to minimize the amount of chlorinated plastics and free organic liquid that is charged into the EAF (**ID No. ES01**) while producing leaded steel. These requirements do not apply to the routine recycling of bags from the Melt Shop baghouse (**ID No. CD01**) or other internal process or maintenance materials in the EAF (**ID No. ES01**) if those exempted materials are identified in the PPP. The PPP must include:
      - (1) Specifications that scrap materials must be depleted (to the extent practicable) of undrained oil filters, chlorinated plastics, and free organic liquids at the time of charging into the EAF (**ID No. ES01**);
      - (2) A requirement in the scrap specifications for removal (to the extent practicable) of lead-containing components (e.g. batteries, battery cables, and wheel weights); and
      - (3) Procedures for determining if the requirements and specifications are being met (e.g. visual inspections or periodic audits of scrap providers) and procedures for taking corrective actions with non-complying vendors.
    - (B) Maintain a copy of the PPP on-site and operate in accordance with the PPP; and
    - (C) Provide training on the PPP's requirements to all plant personnel charged with materials acquisition or inspection duties.

- e. The Permittee must procure scrap containing motor vehicle scrap pursuant to the following requirements for each scrap provider, contract, or shipment and perform the following monitoring of mercury in materials charged into the EAF (**ID No. ES01**):
- i. For the scrap for which the Permittee has opted to comply with 40 CFR §63.10685(b) via the requirements of 40 CFR §63.10685(b)(1) “Site-specific plan for mercury switches” the Permittee must:
    - (A) Include a requirement in the Nucor Steel-Hertford County Steel Mill scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap;
    - (B) Prepare and operate at all times according to an approved site-specific plan demonstrating how the Nucor Steel-Hertford County Steel Mill will implement the scrap specifications in 40 CFR §63.10685(b)(1) for removal of mercury switches. The plan must include:
      - (1) A means of communicating (e.g. letters, contract language, policies for purchasing agents, and scrap inspection protocols) to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from that scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268);
      - (2) Documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles;
      - (3) Provisions for obtaining assurance from scrap providers that motor vehicle scrap provided to the facility meet the scrap specification;
      - (4) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and
      - (5) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in Section 2.1 A.6.e.i(B)(4), above.
    - (C) Establish a goal for each motor vehicle scrap provider to remove at least 80 percent of the mercury switches from the motor vehicle scrap that they send to the Nucor Steel-Hertford County Steel Mill and require each of those providers to provide an estimate (and the basis for the estimate) of the number of mercury switches removed from the motor vehicle scrap that they sent to the Nucor Steel-Hertford County Steel Mill during the previous year.
  - ii. For the scrap for which the Permittee has opted to comply with 40 CFR §63.10685(b) via the requirements of 40 CFR §63.10685(b)(2) “Option for approved mercury programs” the Permittee must:
    - (A) Participate in and purchases motor vehicle scrap only from scrap providers (or from brokers who obtained that motor vehicle scrap from other scrap providers) who participate in an EPA-approved program, based on the criteria in Sections 2.1 A.6.e.ii(B)(1) through (3), below, for removal of mercury switches.
    - (B) The criteria for EPA-approval of a program for removal of mercury switches include:
      - (1) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;
      - (2) The program has a goal to remove at least 80 percent of mercury switches from the motor vehicle scrap the scrap provider processes; and
      - (3) The program sponsor agrees to submit progress reports to the EPA Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268).
    - (C) The Permittee must develop and maintain onsite a plan demonstrating the manner through which the Nucor Steel-Hertford County Steel Mill is participating in the EPA-approved program.

- (1) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.
  - (2) The Permittee must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles.
  - (3) The Permittee must conduct periodic inspections or provide other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.
- iii. For the scrap for which the Permittee has opted to comply with 40 CFR §63.10685(b) via the requirements of 40 CFR §63.10685(b)(3) "Option for specialty metal scrap" the Permittee must only include scrap materials recovered from motor vehicles for their specialty alloy content which, based on the nature of the scrap and purchase specifications, are not reasonably expected to contain mercury switches.
  - iv. For the scrap for which the Permittee has opted to comply with 40 CFR §63.10685(b) via the requirements of 40 CFR §63.10685(b)(4) "Scrap that does not contain motor vehicle scrap" the Permittee must only include scrap that does not contain motor vehicle scrap.
- f. For the DEC system and the Melt Shop baghouse (**ID No. CD01**) the Permittee shall comply with the monitoring requirements of 15A NCAC 2D .0614 "Compliance Assurance Monitoring" found in Sections 2.1 A.5.c.i, above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart YYYYY if this monitoring is not conducted.

**Recordkeeping** [15A NCAC 2D .1111 and 40 CFR §63.10, 40 CFR §63.10685 and 40 CFR §63.10686]

- g. For the DEC system and the Melt Shop baghouse (**ID No. CD01**) the Permittee shall comply with the recordkeeping requirements of 15A NCAC 2D .0614 "Compliance Assurance Monitoring" found in Section 2.1 A.5.c.ii, above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart YYYYY if these records are not maintained.
- h. The Permittee must maintain records (written or electronic format) to demonstrate compliance with the requirements of Sections 2.1 A.6.d and e, above, and Sections 2.1 A.6.h.i and ii, below. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart YYYYY if the monitoring is not performed or if these records are not maintained. These records must be retained for at least 5 years and, at a minimum, the most recent 2 years of data must be retained on-site.
  - i. For the scrap for which the Permittee has opted to comply with the mercury restrictions of 40 CFR Part 63, Subpart YYYYY via Section 2.1 A.6.e.i, above: records of the number of mercury switches removed or the weight mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and
  - ii. For the scrap for which the Permittee has opted to comply with the mercury restrictions of 40 CFR Part 63, Subpart YYYYY via Section 2.1 A.6.e.ii, above: records identifying each scrap provider and documenting the scrap provider's participation in an EPA-approved mercury switch removal program. If the scrap was obtained from a broker, then the Permittee must maintain records identifying each such broker and documentation that all scrap provided by each broker was obtained from other scrap providers who participate in an EPA-approved mercury switch removal program.

**Reporting** [15A NCAC 2D .1111 and 40 CFR §63.10686 and 40 CFR §63.10690]

- i. For the DEC system and the Melt Shop baghouse (**ID No. CD01**) the Permittee must comply with the reporting requirements of 15A NCAC 2D .0614 "Compliance Assurance Monitoring" found in Section 2.1 A.5.d, above.
- j. Within 30 days of a written request by the NC DAQ the Permittee shall submit examples of materials that are used for outreach to suppliers (e.g. letters, contract language, policies of purchasing agents, and scrap inspection protocols) for the scrap for which the Permittee has opted to comply with the mercury restrictions of 40 CFR Part 63, Subpart YYYYY via Sections 2.1 A.6.e.i and ii, above.
- k. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. These semiannual summary reports must include:

- i. Clear identification of all instances of deviations from the requirements of this permit and the associated corrective actions taken;
- ii. Identification of which compliance option listed in Sections 2.1 A.6.e.i through iv, above, applies to each scrap provider, contract, or shipment; and
- iii. For the scrap for which the Permittee has opted to comply with the mercury restrictions of 40 CFR Part 63, Subpart YYYYYY via Section 2.1 A.6.e.i, above:
  - (A) The number of mercury switches removed or the weight mercury recovered from the switches and properly managed, the estimated number of vehicles processed and an estimate of the percent of mercury switches recovered. This information may be submitted in aggregated form and does not have to be submitted for each scrap provider, contract, or shipment;
  - (B) The estimated number of vehicles processed;
  - (C) An estimate of the percent of mercury switches recovered;
  - (D) A certification that the recovered mercury switches were recycled at RCRA-permitted facilities; and
  - (E) A certification that Nucor Steel-Hertford County Steel Mill staff have conducted inspections or taken other means of corroboration as required under Section 2.1 A.6.e.i(B)(4), above.

**B. Natural gas direct-fired Reheat Furnace (309 million Btu per hour maximum heat input rate; ID No. ES04)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20% opacity	15A NCAC 2D .0521
Various	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Toxic Air Pollutants	State-Enforceable Only Refer to Section 2.2 A	15A NCAC 2D .1100
Odorous emissions	State Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from Reheat Furnace (**ID No. ES04**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]
 

**Testing** [15A NCAC 2Q .0508(f)]
- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.
 

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]
- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the combustion of natural gas in Reheat Furnace (**ID No. ES04**).

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from Reheat Furnace (**ID No. ES04**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the combustion of natural gas in Reheat Furnace (**ID No. ES04**).

**3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) permitted emission limits for the Reheat Furnace (**ID No. ES04**) are as follows:

<b>Pollutant</b>	<b>BACT Limits</b>
PM <sub>10</sub> /PM <sub>2.5</sub>	2.40 pounds per hour
SO <sub>2</sub>	0.18 pounds per hour
NO <sub>2</sub>	Use of low-NOx burners
	0.128 pounds NOx per million Btu heat input
CO	26 pounds per hour
VOC	1.7 pounds per hour

- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

<b>Pollutant</b>	<b>Pounds per Hour</b>
PM <sub>2.5</sub>	2.40
PM <sub>10</sub>	2.40
NO <sub>2</sub>	39.52

**Testing** [15A NCAC 2Q .0508(f)]

- c. i. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the NO<sub>x</sub> emission limit of 0.128 pounds per million Btu of heat input by testing the emissions from the Reheat Furnace (**ID No. ES04**) during the 2nd quarter of each calendar year.
- ii. The capacity at which the annual testing is conducted shall be based on production records and shall be as approved by the DAQ, Washington Regional Office.
- iii. The testing shall be performed in accordance with 15A NCAC 2D .2601, General Condition JJ, and a protocol approved by NC DAQ. At least forty-five (45) days prior to performing this required emissions testing, the Permittee shall develop and submit a testing protocol to the Washington Regional Supervisor, Division of Air Quality for review and approval.
- iv. If the results of this test are above the limit of 0.128 pounds per million Btu of heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Reporting** [15A NCAC 2Q .0508(f)]

- d. Within 30 days after conducting the testing required in Section 2.1 B.3.b, above, the Permittee shall submit a written report of the test results to the Washington Regional Office.

**C. Railcar and/or truck unloading of lime (ID No. ES93A);**

**Railcar and/or truck unloading of injection carbon (ID No. ES93) and associated baghouse (1,000 square feet of filter area; ID No. CD05); and**

**Ten lime and/or injection carbon storage silos (ID Nos. ES17 through ES26) and four associated bin vent filters (117 square feet of filter area, each; ID No. CD02)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 55.0(P)^{0.11} - 40$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
	Best Achievable Control Technology $\leq 0.01$ grains per dry standard cubic foot from CD02	15A NCAC 2D .0530
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odorous emissions	State-Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter (PM) from the railcar and/or truck unloading of injection carbon (**ID No. ES93**) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 55.0(P)^{0.11} - 40 \quad \text{Where: } E = \text{Allowable emission rate in pounds per hour}$$

$$P = \text{Process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for PM emissions from this source since the estimated before control PM emissions are less than the allowable PM emission rate.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the lime and/or injection carbon storage silos (**ID Nos. ES17 through ES26**), railcar and/or truck unloading of lime (**ID No. ES93A**), and railcar and/or truck unloading of injection carbon (**ID No. ES93**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once per semiannual reporting period (as defined in Section 2.1 C.2.e, below) the Permittee shall observe the emission points of the lime and/or injection carbon storage silos (**ID Nos. ES17 through ES26**), the railcar and/or truck unloading of lime (**ID No. ES93A**), and the railcar and/or truck unloading of injection carbon (**ID No. ES93**), while unloading operations are being conducted, for any visible emissions above normal. The semiannual observations must be made for each semiannual period of the calendar year to ensure compliance with this requirement. If visible emissions from any of these sources are observed to be above normal, the Permittee shall either:

- i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a semiannual summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. Particulate matter emissions from the four bin vent filters (**ID No. CD02**) associated with the lime and/or injection carbon storage silos (**ID Nos. ES17 through ES26**) shall not exceed the “Best Available Control Technology” (BACT) permitted emission limit of 0.01 grains per dry standard cubic foot.

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.3.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. To ensure that optimum particulate matter control efficiency is maintained by the four bin vent filters (**ID No. CD02**), inspections and maintenance shall be performed as recommended by the manufacturer and or operating experience. A written or computer based program which details the scheduled maintenance and inspection activities shall be maintained and kept current. The defined activities shall be performed per a set schedule (daily through annually) with a method of tracking and recording the completion of each event.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these inspections and maintenance are not conducted or the records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a summary report of inspection and maintenance activities within 30 days of a written request by the DAQ.
- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**D. Slag Handling Process (ID No. ES37)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Visible emissions	20 percent opacity per source	15A NCAC 2D .0521
Toxic Air Pollutants	State-Enforceable Only Refer to Section 2.2 A	15A NCAC 2D .1100
Odorous emissions	State-Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the Slag Handling Process (**ID No. ES37**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once per day the Permittee shall observe the emission points of Slag Handling Process (**ID No. ES37**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semiannual period. If visible emissions from Slag Handling Process (**ID No. ES37**) are observed to be above normal, the Permittee shall either:
  - i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.1.a above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) for the Slag Handling Process (**ID No. ES37**) is as follows:
  - i. The permitted slag process throughput (as determined via the on-site truck scale) is 360,000 tons per consecutive 12-month period;
  - ii. Apply wet suppression as necessary for slag cooling and for continuous fugitive particulate matter emissions control for slag handling, processing, and storage;
  - iii. Limit drop heights from conveyor discharge to 15 feet; and
  - iv. Limit drop heights from mobile equipment to secondary piles to 4 feet.
  
- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

<b>Pollutant</b>	<b>Pounds per Hour</b>
PM <sub>2.5</sub>	0.178
PM <sub>10</sub>	1.75

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall perform monthly monitoring and recordkeeping of the tons of slag processed (as determined via the on-site truck scale) during that month and calculate the total slag processed for the 12-consecutive month period ending with that month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if this monitoring is not conducted or the records are not maintained.

- e. A wet suppression log shall be maintained daily, indicating areas and by time of day where water was applied and the quantity of water applied, along with a single notation of daily rainfall amounts. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. These reports shall include:
  - i. Clear identification of all instances of deviations from the requirements of this permit; and
  - ii. The total slag processed for each of the six 12-consecutive month periods ending during the reporting period.

**E. Three cooling towers (ID Nos. ES38, ES39, and ES40) and three associated mist eliminators (0.008 percent drift loss; ID Nos. CDME38, CDME39, and CDME40, respectively) and one two-cell cooling tower (3,000 gallon per minute maximum flow rate) (ID No. ES102) and associated mist eliminator (0.005 percent drift loss) (ID No. CD08)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 55.0(P)^{0.11} - 40$ or $E = 55.0(P)^{0.11} - 40$ Where: E = Allowable emission rate in pounds per hour P = Process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Odorous emissions	State-Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the four cooling towers (**ID Nos. ES38, ES39, ES40 and ES102**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the four cooling towers (**ID Nos. ES38, ES39, ES40 and ES102**).

**2. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) for the Cooling Towers (**ID Nos. ES38, ES39 and ES40**) is as follows:
- i. The Permittee shall not operate the Cooling Towers (**ID Nos. ES38, ES39 and ES40**) without the concurrent operation of the associated mist eliminators with a 0.008 percent drift loss.
- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Cooling Tower (ID No. ES38)	PM <sub>2.5</sub>	2.0
	PM <sub>10</sub>	2.0
Cooling Tower (ID No. ES39)	PM <sub>2.5</sub>	3.02
	PM <sub>10</sub>	3.02
Cooling Tower (ID No. ES40)	PM <sub>2.5</sub>	4.8
	PM <sub>10</sub>	4.8

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. Once each calendar year, the physical condition of the mist eliminators must be checked. In a logbook (written or electronic format), the date of the inspection shall be entered and a summary of any actions taken. The logbook shall be made available to an authorized DAQ representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these inspections are not conducted or the records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. No reporting is required for particulate matter emissions from these sources.

**3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) for the Cooling Tower (**ID Nos. ES102**) is as follows:
  - i. The Permittee shall not operate the Cooling Tower (**ID Nos. ES102**) without the concurrent operation of the associated mist eliminator with a 0.005 percent drift loss.
- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Cooling Tower (ID No. ES102)	PM <sub>2.5</sub>	0.038
	PM <sub>10</sub>	0.038

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. Once each calendar year, the physical condition of the mist eliminator must be checked. In a logbook (written or electronic format), the date of the inspection shall be entered and a summary of any actions taken. The logbook shall be made available to an authorized DAQ representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these inspections are not conducted or the records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. No reporting is required for particulate matter emissions from this source.

## F. Unpaved Roads (ID No. ES41)

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter (PM/PM <sub>10</sub> /PM <sub>2.5</sub> )	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Fugitive dust	Must not cause or contribute to substantive complaints	15A NCAC 2D .0540
Visible emissions	Visible emissions (Method 22) must not be observed beyond the property boundary for six minutes or more in any hour	

### 1. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The “Best Available Control Technology” (BACT) for continuous control of fugitive dust emissions from Unpaved Roads (ID No. ES41) is comprised of the following work practices:
  - i. Periodic application of water, chemical dust suppressants, or mill scale to unpaved roadways; and
  - ii. Posted speed limit signs of 10 miles per hour.
- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Unpaved Roads (ID No. ES41)	PM <sub>2.5</sub>	0.191
	PM <sub>10</sub>	1.91

#### **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. A wet suppression log shall be maintained daily, indicating areas and by time of day where water, chemical dust suppressants, or mill scale were applied and the quantity that was applied, along with a single notation of daily rainfall amounts.  
  
The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.
- d. The Permittee shall post speed limit signs at appropriate intervals on all unpaved haul roads and inspect and maintain those speed limit signs as necessary.

#### **Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

### 2. 15A NCAC 2D .0540: PARTICULATES FROM FUGITIVE DUST EMISSION SOURCES

- a. The Permittee shall not cause or allow fugitive dust emissions from unpaved roads (ID No. ES41) cause or contribute to substantive complaints (i.e. complaints that are verified by physical evidence) or visible emissions in excess of those allowed under 15A NCAC 2D .0540(e).

#### **Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- b. To assure compliance, the Permittee shall comply with the requirements of Sections 2.1 F.1, above, for fugitive dust emissions and visible emissions from the unpaved roads (ID No. ES41).

**G. Plate cutting bed with 8 natural gas-fired torches (0.04 million Btu per hour maximum heat input, each) and 2 plasma torches (ID No. ES91) and associated baghouse (3,040 square feet of filter area; ID No. CD04)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 55.0(P)^{0.11} - 40$ Where: E = Allowable emission rate in pounds per hour P = Process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odororous emissions	State-Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter (PM) from the plate cutting bed (**ID No. ES91**) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 55.0(P)^{0.11} - 40 \quad \text{Where: } E = \text{Allowable emission rate in pounds per hour}$$

$$P = \text{Process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for PM emissions from this source.

**2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the plate cutting bed (**ID No. ES91**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from this source.

**3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the plate cutting bed (**ID No. ES91**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.3.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from this source.

**H. Ten emergency reciprocating internal combustion engines (RICE) as follows:**

**Three diesel-fired emergency generators (2,000 kW maximum rated power output, each; ID Nos. ES80, ES81, and ES82);**

**One natural gas-fired emergency generator (90 kW maximum rated power output; ID No. ES84);**

**One diesel-fired emergency generator (90 kW maximum rated power output; ID No. ES86);**

**Four diesel-fired emergency water pumps (130 kW, 180 kW, 110 kW, and 630 kW maximum rated power output; ID Nos. ES87, ES88, ES89, ES90, respectively); and**

**One natural gas-fired emergency generator (131 kW maximum rated power output; ID No. ES103)**

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Various	<u>Best Achievable Control Technology</u> Operation limited to 100 hours of operation per 12-consecutive month period for each RICE except ES103	15A NCAC 2D .0530
Odorous emissions	State Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806
Hazardous Air Pollutants	<u>Maximum Achievable Control Technology</u> No applicable requirements	15A NCAC 2D .1111 [40 CFR Part 63, Subpart ZZZZ]

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, ES86 through ES90, and ES103**) shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, ES86 through ES90, and ES103**).

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, ES86 through ES90, and ES103**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, ES86 through ES90, and ES103**).

### 3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The “Best Available Control Technology” (BACT) requirement for emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, and ES86 through ES90**) is to limit the associated emissions by restricting the operating hours of each of these emergency RICE to 100 hours per 12-consecutive month period.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- b. The Permittee shall perform monthly monitoring and recordkeeping of the operating hours during that month and calculate the total operating hours for the 12-consecutive month period ending with that month for each of the emergency RICE listed in Section 2.1 H.3.a, above. Records shall be maintained in a logbook (written or electronic format) onsite and made available for inspection by authorized officials.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if this monitoring is not performed or if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- c. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. These reports shall include:
  - i. Clear identification of all instances of deviations from the requirements of this permit; and
  - ii. The total operational hours for each of the six 12-consecutive month periods ending during the reporting period for each of the emergency RICE listed in Section 2.1 H.3.a, above.

### 4. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

**Applicability** [15A NCAC 2D .1111 and 40 CFR §63.6585]

- a. The emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, ES86 through ES90, and ES103**) are subject to Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."

**Monitoring/Recordkeeping/Reporting** [40 CFR §63.6590]

- b. Emergency RICE (**ID Nos. ES80, ES81, ES82, ES84, ES86 through ES90**) are considered existing sources, pursuant to §63.6590(a)(1)(iii), for the purposes of Subpart ZZZZ. Therefore, pursuant to §63.6590(b)(3), these emergency RICE are not required to meet the requirements of 40 CFR Part 63, Subparts ZZZZ or A "General Provisions" (i.e. initial notifications are not required for these emergency RICE).
- c. Emergency RICE (**ID No. ES103**) is considered a new source, pursuant to §63.6590(a)(2)(iii), for the purposes of Subpart ZZZZ. Therefore, in accordance with §63.6590(c), this emergency RICE must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart JJJJ "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines." However, because emergency RICE ES103 was manufactured prior to January 1, 2009, pursuant to §60.4230(a)(4)(iv), emergency RICE ES103 is not subject to any requirements under 40 CFR Part 60, Subpart JJJJ.

**I. The following sources:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES98	Natural gas/oxyfuel-fired plate cutting bed consisting of ten oxy-fuel torches (0.4 million Btu hour total heat input rate)	CD07	Cartridge filter
ES99	Natural gas/oxyfuel-fired plate cutting bed consisting of 8 oxy-fuel torches and two plasma torches (0.32 million Btu per hour total heat input rate)		

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Various	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Odorous emissions	State-Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish  $A_{normal}$  for the sources in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) permitted emission limits from these sources are as follows:

Pollutant	BACT limits
PM <sub>10</sub> /PM <sub>2.5</sub>	Use of cartridge filter system (ID No. CD07)
	99.99% control efficiency
SO <sub>2</sub> :	Good Combustion Practices
	0.0006 pounds per million Btu heat input
NO <sub>2</sub>	Good Combustion Practices
	0.1 pounds NO <sub>x</sub> per million Btu heat input (oxyfuel mode)
	0.97 pounds NO <sub>x</sub> per hour per torch (plasma mode)
CO	Good Combustion Practices
	0.084 pounds per million Btu heat input
VOC	Good Combustion Practices
	0.0055 pounds per million Btu heat input

- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Two plate cutting beds (ID Nos. ES98 and ES99)	PM <sub>2.5</sub>	0.001
	PM <sub>10</sub>	0.001
	NO <sub>2</sub>	2.0

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. Particulate matter emissions from the shall be controlled by the cartridge filter. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the cartridge filter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the ductwork and cartridge filters are not inspected and maintained.

- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the bagfilters; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on the cartridge filters within 30 days of a written request by the DAQ.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**J. The following source:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES 101	Natural gas-fired vacuum degasser boiler (50.213 million Btu per hour maximum heat input)	N/A	N/A

The following table provides a summary of limits and/or standards for the emission source above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.395 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
NA	Notification and Recordkeeping	15A NCAC 2D .0524 (NSPS Subpart Dc)
Various	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Odors	See Section 2.2 A.3; <b>State-enforceable only</b>	15A NCAC 2D .1806

**1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

- a. Emissions of particulate matter from the combustion of natural gas that are discharged from this source into the atmosphere shall not exceed 0.395 pounds per million Btu heat input. [15A NCAC 02D .0503(a)]

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source.

**2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in this source.

**3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not

more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

**4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS**

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions." [15A NCAC 02D .0524]

**Initial Notification Requirements** [40 CFR60.7]

- b. In addition to any other notification requirements to the Environmental Protection Agency per 40 CFR 60.7, the Permittee is required to notify the Regional Supervisor, DAQ, in writing, of the following:
  - i. A notification of the date construction of an affected facility is commenced postmarked no later than 30 days after such date.
  - ii. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the initial notification requirements in condition b. are not met.

**Recordkeeping Requirements** [15A NCAC 2Q .0508(f)]

- c. Pursuant to 40 CFR 60.48c(g)(2), the Permittee shall record and maintain records of the amount of fuel combusted during each calendar month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the recordkeeping requirements in condition c. are not met.

**5. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The "Best Available Control Technology" (BACT) permitted emission limits from this source is as follows:

Pollutant	BACT limits
PM <sub>10</sub> /PM <sub>2.5</sub>	Good Combustion Practices
	0.0076 pounds per million Btu heat input
SO <sub>2</sub>	Good Combustion Practices
	0.0006 pounds per million Btu heat input
NO <sub>2</sub>	Good Combustion Practices
	Low NOx burners
	0.035 pounds NOx per million Btu heat input
CO	Good Combustion Practices
	0.061 pounds per million Btu heat input
VOC	Good Combustion Practices

Pollutant	BACT limits
	0.0026 pounds per million Btu heat input

- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Vacuum degasser boiler (ID Nos. ES101)	PM <sub>2.5</sub>	0.381
	PM <sub>10</sub>	0.381
	NO <sub>2</sub>	1.76

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required.

**K. The following source:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES 100	Vacuum degasser (317.5metric tons of steel per hour maximum production capacity)	N/A	N/A

The following table provides a summary of limits and/or standards for the emission source above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Various	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Odors	See Section 2.2 A.3; <b>State-enforceable only</b>	15A NCAC 2D .1806

**1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in this source.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

**Testing** [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

**Monitoring** [15A NCAC 02Q .0508(f)]

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish  $A_{normal}$  for the sources in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

**Recordkeeping** [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

**4. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) permitted emission limits from this source is as follows:

Pollutant	BACT limits
PM <sub>10</sub> /PM <sub>2.5</sub>	0.0008 grains/dscf
SO <sub>2</sub>	0.005 pounds per metric ton steel processed
NO <sub>2</sub>	0.005 pounds per metric ton steel processed
CO	0.075 pounds per metric ton steel processed
VOC	0.005 pounds per metric ton steel processed

- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Vacuum degasser (ID Nos. ES100)	PM <sub>2.5</sub>	0.452
	PM <sub>10</sub>	0.452
	NO <sub>2</sub>	1.59

**Testing** [15A NCAC 2Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- d. No monitoring, recordkeeping, or reporting is required.

**L. The following source: (Request Permit Shield for NESHAP Subpart XXXXXX)**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES95	Shot blaster	CD06	Bagfilter (10:1 gas/cloth ratio)

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter (PM/PM <sub>10</sub> /PM <sub>2.5</sub> )	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Odorous emissions	State-Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from this source shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from this source.

**2. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. The “Best Available Control Technology” (BACT) permitted emission limits from this source is as follows:

Pollutant	BACT limits
PM <sub>10</sub> /PM <sub>2.5</sub> (filterable and condensable)	Use of bagfilter control system (CD06)
	99% control efficiency

- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

Emission Source	Pollutant	Pounds per Hour
Shot Blaster (ID Nos. ES95)	PM <sub>2.5</sub>	0.133
	PM <sub>10</sub>	0.137

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from the shot blaster shall be controlled by the bag filter. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the cartridge filter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the ductwork and bag filter are not inspected and maintained.

The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each inspection;
- iii. the results of any maintenance performed on the bagfilters; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

**Reporting** [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit the results of any maintenance performed on the bag filter within 30 days of a written request by the DAQ.

The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**M. The following sources:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES96	Natural gas-fired austenitizing furnace (36 mmBtu per hour maximum heat input capacity)	N/A	N/A
ES97	Natural gas-fired tempering furnace (37 mmBtu per hour maximum heat input capacity)	N/A	N/A

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20% opacity	15A NCAC 2D .0521
Various	Best Achievable Control Technology NAAQS and Increment Modeled Rates	15A NCAC 2D .0530
Toxic Air Pollutants	State-Enforceable Only Refer to Section 2.2 A	15A NCAC 2D .1100
Odorous emissions	State Enforceable Only Refer to Section 2.2 B	15A NCAC 2D .1806

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the combustion of natural gas in these sources.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the combustion of natural gas in the sources.

**3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. The “Best Available Control Technology” (BACT) permitted emission limits for these sources are as follows:

<b>Emission Source</b>	<b>Pollutant</b>	<b>BACT Limits</b>
Natural gas-fired austenitizing furnace (ES96)	PM <sub>10</sub> /PM <sub>2.5</sub>	Good Combustion Practices
		0.0076 pound per million Btu heat input
	SO <sub>2</sub> :	Good Combustion Practices
		0.0006 pound per million Btu heat input
	NO <sub>2</sub>	Good Combustion Practices
		0.211 pound NOx per million Btu heat input
CO	Good Combustion Practices	
	0.084 pound per million Btu heat input	
VOC	Good Combustion Practices	
	0.0055 pound per million Btu heat input	
Natural gas-fired tempering furnace (ES 97)	PM <sub>10</sub> /PM <sub>2.5</sub>	Good Combustion Practices
		0.0076 pound per million Btu heat input
	SO <sub>2</sub> :	Good Combustion Practices
		0.0006 pound per million Btu heat input
	NO <sub>2</sub>	Good Combustion Practices
		0.0702 pound NOx per million Btu heat input
CO	Good Combustion Practices	
	0.084 pound per million Btu heat input	
VOC	Good Combustion Practices	
	0.0055 pound per million Btu heat input	

≡

b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

<b>Emission Source</b>	<b>Pollutant</b>	<b>Pounds per Hour</b>
Natural gas-fired austenitizing furnace (ES96)	PM <sub>2.5</sub>	0.270
	PM <sub>10</sub>	0.270
	NO <sub>2</sub>	7.6
Natural gas-fired tempering furnace (ES97)	PM <sub>2.5</sub>	0.281
	PM <sub>10</sub>	0.281
	NO <sub>2</sub>	2.6

**Testing** [15A NCAC 2Q .0508(f)]

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in condition a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

d. No monitoring, recordkeeping, or reporting is required for the sources.

## 2.2-Multiple Emission Source(s) Specific Limitations and Conditions

### A. Melt Shop roof monitor (EP03) venting fugitive emissions from source ES01;

Melt Shop roof monitor (EP04) venting fugitive emissions from sources ES02, ES03, ES05 through ES15, and ES94;

Melt Shop baghouse (ID No. CD01) associated with:

- One Electric Arc Furnace (ID No. ES01);
- One Ladle Metallurgy Station (ID No. ES02);
- One water-cooled continuous slab caster (ID No. ES03); and
- One dust transport and storage system (ID No. ES16)

Reheat Furnace (ID No. ES04);

Slag Handling Process (ID No. ES37); and

Two gasoline storage tanks (ID Nos. OT-08 and OT-43)

### STATE-ONLY REQUIREMENT

#### 1. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Pollutant	Emission Rate Averaging Period	Emission Source Description							
		Melt Shop Baghouse (ID No. CD01)	Reheat Furnace (ID No. ES04)	Austenitizing Furnace (ID No. ES96)	Tempering Furnace (ID No. ES97)	Melt Shop Fugitives (ID No. EP03 and EP04)	Slag Processing Area (ID no. ES37)	Gasoline Storage Tank (ID No. OT-08)	Gasoline Storage Tank (ID No. OT-43)
		Allowable Emission Rates							
Formaldehyde	pounds per hour	N/A	0.023	2.70E-03	2.78E-03	N/A	N/A	N/A	N/A
Hexane	hour	N/A	0.56	0.065	0.067	N/A	N/A	2.46E-03	4.37E-03
Arsenic	pounds per year	10.01	0.53	0.063	0.065	1.2	0.74	N/A	N/A
Beryllium		23.78	0.035	3.78E-03	3.89E-03	1.28	0.081	N/A	N/A
Cadmium		291.3	2.98	0.35	0.36	34.97	0.14	N/A	N/A
Chromium +6		25.03	0.38	0.44	0.45	1.14E-02	0.068	N/A	N/A
Benzene		17867.62	5.7	0.66	0.68	89.69	N/A	7.01	12.41
Benzo(a)pyrene		N/A	3.27E-03	3.78E-04	3.89E-04	N/A	N/A	N/A	N/A
Manganese	pounds per 24-hours	4.65	3.01E-03	3.28E-04	3.37E-04	6.11	1.94	N/A	N/A
Mercury		5.9	2.00E-03	2.25E-04	2.30E-04	8.40E-03	1.92E-05	N/A	N/A
Nickel		0.7	0.016	1.82E-03	1.86E-03	0.13	0.003	N/A	N/A
Toluene	pounds per hour	N/A	1.05E-03	1.22E-04	1.26E-04	N/A	N/A	1.54E-02	2.72E-02
	pounds per 24-hours	N/A	0.025	2.93E-03	3.03E-03	N/A	N/A	0.370	0.654

**Testing** [15A NCAC 2D 2601]

- b. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits listed in Section 2.2 A.1.a, above, by testing the Melt Shop baghouse (ID No. CD01) once per permit term. The next test must be completed on or before September 30, 2013 and shall be conducted when the electric arc furnace (ID No. ES01), the ladle metallurgical station (ID No. ES02), and the caster (ID No. ES03) are all in operation. The capacity at which the testing is conducted shall be based on production records and shall be as approved by the DAQ, Washington Regional Office. The testing must be performed in accordance with 15A NCAC 2D .2601, General Condition JJ, and a testing protocol approved by NC DAQ. At least forty-five (45) days prior to performing this required emissions testing, the Permittee shall develop and submit a testing protocol to the Washington Regional Supervisor, Division of Air Quality for review and approval.

**Reporting** [15A NCAC 2Q .0508(f)]

- c. Within 30 days after conducting the testing required under Section 2.2 A.1.b, above, the Permittee shall submit a written report of the test results to the Washington Regional Office of NC DAQ.

**B. Facility-Wide Affected Sources**

**STATE-ONLY REQUIREMENT**

**1. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

## **SECTION 3 - GENERAL CONDITIONS (version 3.1)**

This section describes terms and conditions applicable to this Title V facility.

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
  2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
  3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
  4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
  5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
  6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]
- The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]
- In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.
- D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]
- Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NO<sub>x</sub> budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:
- Supervisor, Stationary Source Compliance  
North Carolina Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641
- All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).
- E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]
- The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation

of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. **Administrative Permit Amendments** [15A NCAC 2Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. **Transfer in Ownership or Operation and Application Submittal Content** [15A NCAC 2Q .0524 and 2Q .0505]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.
3. **Minor Permit Modifications** [15A NCAC 2Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. **Significant Permit Modifications** [15A NCAC 2Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. **Reopening for Cause** [15A NCAC 2Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. **Reporting Requirements**  
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
  - a. changes in the information submitted in the application;
  - b. changes that modify equipment or processes; or
  - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. **Section 502(b)(10) Changes** [15A NCAC 2Q .0523(a)]
  - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
  - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
    - i. the changes are not a modification under Title I of the Federal Clean Air Act;
    - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
    - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
    - iv. the Permittee shall attach the notice to the relevant permit.
  - c. The written notification shall include:
    - i. a description of the change;
    - ii. the date on which the change will occur;
    - iii. any change in emissions; and
    - iv. any permit term or condition that is no longer applicable as a result of the change.
  - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. **Off Permit Changes** [15A NCAC 2Q .0523(b)]  
The Permittee may make changes in the operation or emissions without revising the permit if:

- a. the change affects only insignificant activities and the activities remain insignificant after the change; or
  - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 2Q .0523(c)]  
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

**I.A. Reporting Requirements for Excess Emissions and Permit Deviations**

[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

**Excess Emissions**

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
  - a. Pursuant to 15A NCAC 2D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
    - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
      - name and location of the facility;
      - nature and cause of the malfunction or breakdown;
      - time when the malfunction or breakdown is first observed;
      - expected duration; and
      - estimated rate of emissions;
    - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
    - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 2D .0535(f)(3).

**Permit Deviations**

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
  - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

**I.B. Other Requirements under 15A NCAC 2D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 2D .0535(c)(1) through (7).
2. 15A NCAC 2D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
  - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
  - b. the permitted facility was at the time being properly operated;
  - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
  - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and

copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

**P. Compliance Certification** [15A NCAC 2Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

**Q. Certification by Responsible Official** [15A NCAC 2Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**R. Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
  - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
  - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
  - c. the applicable requirements under Title IV; or
  - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

**S. Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

**T. Insignificant Activities** [15A NCAC 2Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

**U. Property Rights** [15A NCAC 2Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 2Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
  - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
  - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
  - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 2Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 2Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 2Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment

according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.

2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

**DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 2Q .0508(h)]**

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

**EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) - FEDERALLY-ENFORCEABLE ONLY**

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

**FF. Title IV Allowances [15A NCAC 2Q .0508(i)(1)]**

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

**GG. Air Pollution Emergency Episode [15A NCAC 2D .0300]**

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.

**HH. Registration of Air Pollution Sources [15A NCAC 2D .0200]**

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

**II. Ambient Air Quality Standards [15A NCAC 2D .0501(c)]**

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

**JJ. General Emissions Testing and Reporting Requirements [15A NCAC 2Q .0508(i)(16)]**

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
3. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
  - a. a description of the training and air testing experience of the person directing the test;
  - b. a certification of the test results by sampling team leader and facility representative;
  - c. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);

- d. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
  - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
  - f. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
  - g. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
4. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
  5. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ.

**KK. Reopening for Cause** [15A NCAC 2Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
  - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
  - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
  - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

**LL. Reporting Requirements for Non-Operating Equipment** [15A NCAC 2Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

**MM. Fugitive Dust Control Requirement** [15A NCAC 2D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

**NN. Specific Permit Modifications** [15A NCAC 2Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 2Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
  - a. a description of the change at the facility;
  - b. the date on which the change will occur;
  - c. any change in emissions; and
  - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

## ATTACHMENT

### List of Acronyms

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CAA</b>	Clean Air Act
<b>CAIR</b>	Clean Air Interstate Rule
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CAA</b>	Clean Air Act
<b>DAQ</b>	Division of Air Quality
<b>DENR</b>	Department of Environment and Natural Resources
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NAA</b>	Non-Attainment Area
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAPS</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>RACT</b>	Reasonably Available Control Technology
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound